

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

WIN-304

Effective July 1, 2003

Revised November 1, 2003

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Series 300HP Aluminum Single Hung Twin Assembly with Series 302 Picture Window Transom, Non-impact Resistant, manufactured by:

Danvid Windows
1813 Kelly Blvd.
Carrollton, Texas 75006
(972) 416-8140

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The aluminum single hung windows and picture window evaluated in this report are non-impact resistant.

Systems: The aluminum single hung twin assembly with the stacked transom has an overall dimension of 89 $\frac{1}{4}$ " wide x 129 $\frac{1}{2}$ " high. The individual single hung windows are 44" wide x 84" high. The sash size for the single hung units measure 43 $\frac{1}{4}$ " wide x 42 $\frac{1}{2}$ " high. The fixed sash size for the single hung units measure 44" wide x 41 $\frac{1}{2}$ " high. The transom picture window has an overall dimension of 89 $\frac{1}{4}$ " wide x 44 $\frac{5}{8}$ " high. This report includes the following configurations: picture, single hung, twin single hung, twin single hung with stacked picture.

Frame: All frame members are composed of 6063-T5 aluminum alloy. Frame corners are coped and butted and connected with two (2) #8 x $\frac{3}{4}$ " long hex head metal screws.

Mullions: The vertical and horizontal mullions are constructed of $\frac{1}{8}$ " thick 6063-T5 aluminum alloy rectangular tubing. The vertical mullion tube size measures 2 $\frac{1}{2}$ " x 1" and the horizontal mullion tube has dimensions of 3 $\frac{3}{4}$ " x 1 $\frac{1}{8}$ ". Each jamb of the single hung windows is secured to the vertical mullion with #8 x $\frac{3}{4}$ " long self tapping hex head screws located 1 $\frac{1}{2}$ " from the top and bottom and spaced 12" o.c. along the mullion. The vertical mullion is fastened to the horizontal mullion with two (2) #8 x $\frac{3}{4}$ " long self tapping hex head screws. The head of each single hung window is secured to the horizontal mullion with four (4) #8 x $\frac{3}{4}$ " long self tapping hex head screws located 5 $\frac{1}{2}$ " from each end and spaced 12 o.c. along

the horizontal mullion. The picture window is fastened to the horizontal mullion with #8 x 3" long self tapping hex head screws located 3" from each end of the mullion and spaced 12" o.c.

PRODUCT DESCRIPTION (Continued)

Glazing (Single Hung Units): The $\frac{1}{2}$ " overall sealed insulating glass units are comprised of two lites of double strength ($\frac{1}{8}$ ") annealed glass separated by an $\frac{1}{4}$ " aluminum spacer system.

Glazing (Picture Window): The $\frac{3}{4}$ " overall sealed insulating glass units are comprised of two lites of $\frac{1}{4}$ " thick annealed glass separated by an $\frac{1}{4}$ " aluminum spacer system.

Glazing Method: For the single hung units, the lites are exterior glazed with back-bedding compound at the interior and rigid vinyl snap-in glazing beads at the exterior of the glass. For the picture window, the lites are exterior glazed with back-bedding compound at the interior and an aluminum glazing beads at the exterior of the glass. The glazing bead for the picture window unit is attached with #6 x 1" long hex head screws located 2" from each end and 12" o.c. spacing thereafter.

Reinforcement: None.

Product Identification: A label will be affixed to the window. The label includes the manufacturer's name, performance characteristics and approved inspection agency to indicate compliance with AAMA/NWWDA 101/I.S.2.

LIMITATIONS

Design pressures:

System	Maximum Overall Width (in.)	Maximum Overall Height (in.)	Design Pressures (psf)
Single Hung	44	84	±45
Twin Unit ¹	88	84	±45
Picture	88	44	±45
Twin Unit with Picture ¹ Transom	88	128	±45

Note: ¹The individual unit sizes of each single hung and picture window shall not exceed the dimensions listed in the systems section of this report.

Impact Resistance: These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be installed in accordance with the manufacturer's installation instructions. The wood framing members shall be minimum Southern Yellow Pine lumber. All assemblies must comply with the limitations specified in this report.

Installation and anchorage of window units:

Stack Unit:

The window unit shall be mounted to the wood framing members through the nailing-fin with No. 6 x 1 $\frac{1}{4}$ " long wood-screws located at each corner and spaced a maximum of 12" on center around the perimeter of

the window unit. The fasteners shall penetrate through the nailing flange and into the wood-framing members.

A mull bracket (part no. 10472-1) is placed at the bottom of the vertical mullion to secure the vertical mullion to the sill wood framing. A mull bracket (part no. 10472-2) is placed at each end of the horizontal mullion to secure the horizontal mullion to the wood framing located at the jambs. The mullion brackets are secured to the wood framing with three (3) No. 6 x 1 $\frac{1}{4}$ " long screws at the sill bracket and four (4) 6 x 1 $\frac{1}{4}$ " long screws for each mull bracket located at the ends of the horizontal mullion.

Single Hung Unit:

The window unit shall be mounted to the wood framing members through the nailing-fin with No. 8 x 1 $\frac{1}{2}$ " long wood-screws. Along the head and sill, the screws shall be located 14" from each corner and spaced a maximum of 16" on center thereafter. For each jamb, the screws shall be located 10" from each end of the jamb and spaced 32" thereafter. The fasteners shall penetrate through the nailing flange and into the wood-framing members.

As an alternative, the window may be installed using 1 $\frac{1}{2}$ " long roofing nails with a minimum shank diameter of 0.120 inches. The nails shall be located 2" from each corner and spaced a maximum of 8" o.c. along the head and sill. Along each jamb, the fasteners shall be located 3 $\frac{1}{2}$ " from each end of the jamb and spaced 7" o.c. thereafter.

Twin Unit:

The window unit shall be mounted to the wood framing members through the nailing-fin with No. 8 x 1 $\frac{1}{2}$ " long wood-screws. Along the head and sill, the screws shall be located 14" from each corner and spaced a maximum of 15" on center thereafter. For each jamb, the screws shall be located 9" from each end of the jamb and spaced 22" thereafter. The fasteners shall penetrate through the nailing flange and into the wood-framing members.

As an alternative, the window may be installed using 1 $\frac{1}{2}$ " long roofing nails with a minimum shank diameter of 0.120 inches. The nails shall be located 1 $\frac{1}{2}$ " from each corner and spaced a maximum of 5" o.c. around the perimeter of the window.

Picture Window:

The window unit shall be mounted to the wood framing members through the nailing-fin with No. 8 x 1 $\frac{1}{2}$ " long wood-screws. Along the head and sill, the screws shall be located 6" from each corner and one located at the midspan. For each jamb, the screws shall be located 14" from each end of the jamb. The fasteners shall penetrate through the nailing flange and into the wood-framing members.

As an alternative, the window may be installed using 1 $\frac{1}{2}$ " long roofing nails with a minimum shank diameter of 0.120 inches. The nails shall be located 2" from each corner and spaced a maximum of 7" o.c. around the perimeter.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).